

REMARKS

The Office Action dated September 26, 2003 has been received and carefully noted. The above amendments to claims 1, 5 and 8, and the following remarks, are submitted as a full and complete response thereto. No new matter has been added and Applicants respectfully assert that no new issues are being raised which require further consideration and/or search. Claims 1-11 are presently pending in the above-cited application and are again submitted for consideration.

Claims 1-11 are presently pending in the above-cited application and have been examined. Additionally, the Office indicated that claims 2, 3, 6 and 9-11 have been allowed. Applicants wish to thank the Examiner for the allowance of the above claims. Claims 1, 4, 5, 7 and 8 are again respectfully submitted for consideration.

Claims 1, 4, 5, 7 and 8 were again rejected under 35 U.S.C. § 102(e) as being unpatentable over *Zorig et al.* (U.S. Patent No. 5,742,587). The above rejection, as might be asserted against claims 1, 4, 5, 7 and 8 as presently amended, is respectfully traversed, as discussed below.

The present invention, according to claim 1, is directed to a method for load balancing in a link aggregation environment, with multiple ports of a network switch being trunked together to form a single logical link. The method includes the steps of determining if a packet flow in a network switch exceeds a predetermined threshold, determining if the packet flow is a candidate for link switching from a first port to a second port, of the multiple ports, when the packet flow exceeds the predetermined

threshold and switching at least a portion of the packet flow from the first port to the second port if the packet flow is determined to be a candidate for link switching.

The present invention, according to claim 5, is directed to a method for load balancing in a link aggregation environment, with multiple ports of a network switch being trunked together to form a single logical link. The method includes the steps of determining a length of a first frame and a length of a second frame entering the link aggregation environment, determining a flow rate of the first frame and the second frame entering the link aggregation environment and determining if the flow rate exceeds a predetermined flow rate threshold. The method also includes determining if the first frame and the second frame are candidates for link switching and switching a transmission link for at least a portion of a packet flow for the flow rate for the second frame from a first transmission port to a second transmission port, of the multiple ports.

The present invention, according to claim 8, is directed to a method for switching a packet flow from a first port to a second port, with the first and second ports being multiple ports between devices being trunked together to form a single logical link. The method includes the steps of determining if the packet flow is a candidate for link switching and switching at least a portion of the packet flow from the first port to the second port.

As discussed above, the methods all provide for redirecting at least a portion of the packet flow to a second port, where the ports are trunked together to form a single logical link. The link aggregation environment is discussed in greater detail in the present specification at page 109 and is defined under IEEE 802.3ad. Such methodology allows

for greater bandwidth to be handled by a single logical link that is greater than the bandwidth for a single port. This should be contrasted with the applied prior art.

The sole applied prior art reference is *Zornig et al.*, where the reference is directed to a switching hub and methods to balance loads between channels of the hub. The process of load management and distribution is automated, wherein periodic reassignment of the network ports at the hub *among internal repeater channels* is performed without requiring any external intervention. The invention is highly effective in balancing the load of network structures having flows typical of client/server environments in which the preponderance of traffic flows from assignable "downstream" ports to non-assignable or fixed "upstream" ports and vice versa.

Applicants note that the balancing in *Zornig et al.* is concerned with a balancing of the internal repeater channels and not in balancing between ports. In *Zornig et al.*, ports are switched between repeater channels, but those ports are not trunked together to form a single logical link. There is no disclosure in *Zornig et al.* teaching or suggesting the claim 1 element of "switching at least a portion of the packet flow from the first port to the second port if the packet flow is determined to be a candidate for link switching" or similar limitations found in claims 5 and 8. Applicants respectfully asserts that any rejection of claims 1, 5 and 8 would be improper for failing to teach or suggest all of the elements of those claims.

As such, Applicants respectfully submit that claims 1, 5 and 8 should be allowed because each recites subject matter that is neither taught nor suggested by the applied prior art references. Likewise, claims 4 and 7 should also be found to be allowable over

the cited prior art reference for at least their dependence on claims 1 and 5. Given the allowance of claims 2, 3, 6 and 9-11, it is therefore respectfully requested that all claims 1-11 be allowed and that this application be allowed to proceed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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